



SEQUENCE LISTING

<110> YOUNG, ANDREW A.
GEDULIN, BRONISLAVA
BEYNON, GARETH WYN

<120> METHOD FOR PREVENTING GASTRITIS USING AMYLIN OR AMYLIN
AGONISTS

<130> 18528.412

<140> 08/851,965

<141> 1997-05-06

<160> 39

<170> PatentIn Ver. 3.3

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<220>

<223> Disulfide bridge between the Cys residues at
positions 2 and 7

<220>

<221> MOD_RES

<222> (37)

<223> amidated Tyr (Tyrosinamide)

<400> 1

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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protein construct

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<223> Disulfide bridge between the Cys residues at
positions 1 and 6

<220>

<221> MOD_RES

<222> (36)

<223> amidated Tyr (Tyrosinamide)

<400> 2

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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positions 2 and 7

<220>

<221> MOD_RES

<222> (37)

<223> amidated Tyr (Tyrosinamide)

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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positions 2 and 7

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<221> MOD_RES

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<223> amidated Tyr (Tyrosinamide)

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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positions 1 and 6

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<223> amidated Tyr (Tyrosinamide)

<400> 5

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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<400> 6
 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
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 Val His Ser Ser Asn Asn Phe Gly Pro Val Leu Pro Pro Thr Asn Val
 20 25 30
 Gly Ser Asn Thr Tyr
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 1 5 10 15
 Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
 20 25 30
 Gly Ser Asn Thr Tyr
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<221> MOD_RES

<222> (36)

<223> amidated Tyr (Tyrosinamide)

<400> 8

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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<223> amidated Tyr (Tyrosinamide)

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<223> amidated Tyr (Tyrosinamide)

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
1 5 10 15

His Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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positions 2 and 7

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1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr

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 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
 1 5 10 15

Val Arg Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val
 20 25 30

Gly Ser Asn Thr Tyr
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Val Arg Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Ser Thr Asn Val
 20 25 30

Gly Ser Asn Thr Tyr
35

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile His Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
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Ile His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
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Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Ile
1 5 10 15

His Ser Ser Asn Asn Leu Gly Pro Ile Leu Pro Pro Thr Asn Val Gly
20 25 30

Ser Asn Thr Tyr
35

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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu

1	5	10	15
Ile Arg Ser Ser Asn Asn Leu Gly Ala Ile Leu Ser Ser Thr Asn Val			
20	25	30	

Gly Ser Asn Thr Tyr
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<220>
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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Ile Arg Ser Ser Asn Asn Leu Gly Ala Val Leu Ser Pro Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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<220>
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<222> (37)
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 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
 1 5 10 15
 Ile Arg Ser Ser Asn Asn Leu Gly Pro Val Leu Pro Pro Thr Asn Val
 20 25 30
 Gly Ser Asn Thr Tyr
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 1 5 10 15
 Val His Ser Ser His Asn Leu Gly Ala Ala Leu Leu Pro Thr Asp Val
 20 25 30
 Gly Ser Asn Thr Tyr
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Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
1 5 10 15

Val His Ser Ser His Asn Leu Gly Ala Ala Leu Ser Pro Thr Asp Val
20 25 30

Gly Ser Asn Thr Tyr
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protein construct

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positions 1 and 6

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<400> 24

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu Val
1 5 10 15

His Ser Ser His Asn Leu Gly Ala Ala Leu Pro Ser Thr Asp Val Gly
20 25 30

Ser Asn Thr Tyr
35

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 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
 1 5 10 15
 Val Arg Ser Ser His Asn Leu Gly Ala Ala Leu Ser Pro Thr Asp Val
 20 25 30
 Gly Ser Asn Thr Tyr
 35

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<220>
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<400> 26
 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
 1 5 10 15
 Val Arg Ser Ser His Asn Leu Gly Ala Ile Leu Pro Pro Thr Asp Val
 20 25 30
 Gly Ser Asn Thr Tyr
 35

<210> 27
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 protein construct

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 positions 2 and 7

<220>
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 <400> 27
 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Thr Asn Phe Leu
 1 5 10 15
 Val Arg Ser Ser His Asn Leu Gly Pro Ala Leu Pro Pro Thr Asp Val
 20 25 30
 Gly Ser Asn Thr Tyr
 35

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 protein construct

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 <222> (25)
 <223> amidated Pro (Prolinamide)

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 Val Leu Gly Lys Leu Ser Gln Glu Leu His Lys Leu Gln Thr Tyr Pro
 1 5 10 15
 Arg Thr Asn Thr Gly Ser Gly Thr Pro
 20 25

<210> 29
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<220>
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 protein construct

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 <223> 2,7 cyclo bridge

<220>
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 <222> (37)
 <223> amidated Tyr (Tyrosinamide)

<400> 29
 Lys Asp Asn Thr Ala Thr Lys Ala Thr Gln Arg Leu Ala Asn Phe Leu
 1 5 10 15
 Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val
 20 25 30
 Gly Ser Asn Thr Tyr
 35

<210> 30
 <211> 36
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<220>
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 protein construct

<220>
 <223> Disulfide bridge between the Cys residues at
 positions 1 and 6

<220>
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 <223> amidated Tyr (Tyrosinamide)

<400> 30
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 1 5 10 15
 His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val Gly
 20 25 30
 Ser Asn Thr Tyr
 35

<210> 31
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 protein construct

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<220>
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<223> amidated Tyr (Tyrosinamide)

<400> 31

Ala Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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protein construct

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positions 2 and 7

<220>

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<222> (37)

<223> amidated Tyr (Tyrosinamide)

<400> 32

Ser Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
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Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn Val
20 25 30

Gly Ser Asn Thr Tyr
35

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protein construct

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positions 2 and 7

<220>

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 <400> 33
 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
 1 5 10 15

 Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Pro Thr Asn Val
 20 25 30

 Gly Ser Asn Thr Tyr
 35

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 Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu
 1 5 10 15

 Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val
 20 25 30

 Gly Ser Asn Thr Tyr
 35

<210> 35
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<220>
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 positions 1 and 6

<220>
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<400> 35
 Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu Val
 1 5 10 15
 His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn Val Gly
 20 25 30
 Ser Asn Thr Tyr
 35

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<220>
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 <222> (2)
 <223> Variable amino acid

<220>
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 <223> Ala, Ser, or Thr

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 <222> (17)
 <223> Val, Leu, or Ile

<220>
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 <222> (18)
 <223> His or Arg

<220>
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<223> Ser, Thr, Gln, or Asn

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<223> Asn, Gln, or His

<220>
<221> MOD_RES
<222> (23)
<223> Phe, Leu, or Tyr

<220>
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<222> (26)
<223> Ile, Val, Ala, or Leu

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<222> (29)
<223> Ser, Pro, or Thr

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<222> (31)
<223> Asn, Asp, or Gln

<220>
<223> See specification as filed for detailed description of
substitutions and preferred embodiments

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Xaa Xaa Asn Thr Ala Thr Xaa Ala Thr Gln Arg Leu Xaa Asn Phe Leu
1 5 10 15
Xaa Xaa Xaa Xaa Xaa Asn Xaa Gly Pro Xaa Leu Pro Xaa Thr Xaa Val
20 25 30
Gly Ser Asn Thr Tyr
35

<210> 37
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protein construct

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<222> (13)

<223> Ala, Ser, or Thr

<220>

<221> MOD_RES

<222> (17)

<223> Val, Leu, or Ile

<220>

<221> MOD_RES

<222> (18)

<223> His or Arg

<220>

<221> MOD_RES

<222> (19)

<223> Ser or Thr

<220>

<221> MOD_RES

<222> (20)

<223> Ser, Thr, Gln, or Asn

<220>

<221> MOD_RES

<222> (21)

<223> Asn, Gln, or His

<220>

<221> MOD_RES

<222> (23)

<223> Phe, Leu, or Tyr

<220>

<221> MOD_RES

<222> (26)

<223> Ile, Val, Ala, or Leu

<220>

<221> MOD_RES

<222> (28)

<223> Ser, Pro, Leu, Ile, or Thr

<220>

<221> MOD_RES

<222> (31)

<223> Asn, Asp, or Gln

<220>

<223> See specification as filed for detailed description of
substitutions and preferred embodiments

<400> 37

Xaa	Xaa	Asn	Thr	Ala	Thr	Xaa	Ala	Thr	Gln	Arg	Leu	Xaa	Asn	Phe	Leu
1				5					10					15	

Xaa	Xaa	Xaa	Xaa	Xaa	Asn	Xaa	Gly	Pro	Xaa	Leu	Xaa	Pro	Thr	Xaa	Val
			20					25						30	

Gly	Ser	Asn	Thr	Tyr
				35

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<220>

<221> MOD_RES

<222> (2)

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<221> MOD_RES

<222> (7)

<223> Variable amino acid

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<221> MOD_RES

<222> (13)

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<220>
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 <223> His or Arg

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 <223> Ser or Thr

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 <223> Ser, Thr, Gln, or Asn

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<220>
 <223> See specification as filed for detailed description of
 substitutions and preferred embodiments

<400> 38
 Xaa Xaa Asn Thr Ala Thr Xaa Ala Thr Gln Arg Leu Xaa Asn Phe Leu
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Asn Xaa Gly Xaa Xaa Leu Pro Pro Thr Xaa Val
 20 25 30

Gly Ser Asn Thr Tyr
35

<210> 39
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
protein construct

<220>
<221> MOD_RES
<222> (1)
<223> Lys, Ala, Ser or not present

<220>
<221> MOD_RES
<222> (2)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (7)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (13)
<223> Ala, Ser, or Thr

<220>
<221> MOD_RES
<222> (17)
<223> Val, Leu, or Ile

<220>
<221> MOD_RES
<222> (18)
<223> His or Arg

<220>
<221> MOD_RES
<222> (19)
<223> Ser or Thr

<220>
<221> MOD_RES
<222> (20)
<223> Ser, Thr, Gln, or Asn

<220>
<221> MOD_RES
<222> (21)

<223> Asn, Gln, or His

<220>

<221> MOD_RES

<222> (23)

<223> Phe, Leu, or Tyr

<220>

<221> MOD_RES

<222> (26)

<223> Ile, Val, Ala, or Leu

<220>

<221> MOD_RES

<222> (31)

<223> Asn, Asp, or Gln

<220>

<223> See specification as filed for detailed description of
substitutions and preferred embodiments

<400> 39

Xaa	Xaa	Asn	Thr	Ala	Thr	Xaa	Ala	Thr	Gln	Arg	Leu	Xaa	Asn	Phe	Leu
1				5					10					15	

Xaa	Xaa	Xaa	Xaa	Xaa	Asn	Xaa	Gly	Pro	Xaa	Leu	Pro	Pro	Thr	Xaa	Val
				20				25					30		

Gly	Ser	Asn	Thr	Tyr
				35